National Institute of Environmental Health Sciences

Economic evaluation of environmental health interventions to support decision making

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Abstract:

Environmental burden of disease represents one quarter of overall disease burden, hence necessitating greater attention from decision makers both inside and outside the health sector. Economic evaluation techniques such as cost-effectiveness analysis and cost-benefit analysis provide key information to health decision makers on the efficiency of environmental health interventions, assisting them in choosing interventions which give the greatest social return on limited public budgets and private resources. The aim of this article is to review economic evaluation studies in three environmental health areas-water, sanitation, hygiene (WSH), vector control, and air pollution-and to critically examine the policy relevance and scientific quality of the studies for selecting and funding public programmers. A keyword search of Medline from 1990-2008 revealed 32 studies, and gathering of articles from other sources revealed a further 18 studies, giving a total of 50 economic evaluation studies (13 WSH interventions, 16 vector control and 21 air pollution). Overall, the economic evidence base on environmental health interventions remains relatively weak-too few studies per intervention, of variable scientific quality and from diverse locations which limits generalisability of findings. Importantly, there still exists a disconnect between economic research, decision making and programmer implementation. This can be explained by the lack of translation of research findings into accessible documentation for policy makers and limited relevance of research findings, and the often low importance of economic evidence in budgeting decisions. These findings underline the importance of involving policy makers in the defining of research agendas and commissioning of research, and improving the awareness of researchers of the policy environment into which their research feeds.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3091345

Resource Description

Communication:

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience:

audience to whom the resource is directed

Policymaker, Researcher

Exposure :

weather or climate related pathway by which climate change affects health

Air Pollution, Ecosystem Changes, Food/Water Quality, Food/Water Security

Geographic Feature:

resource focuses on specific type of geography

Freshwater

Geographic Location:

resource focuses on specific location

Global or Unspecified

Health Co-Benefit/Co–Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Foodborne/Waterborne Disease, Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue, Malaria

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Other Projection Model/Methodology: Discussion only

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Children, Low Socioeconomic Status

Resource Type:

format or standard characteristic of resource

Research Article

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content